

81. An isolated nucleic acid comprising nucleotides having a sequence which encodes an Activator of G Protein Signaling ("AGS") protein which comprises amino acids having a sequence as set forth in SEQ ID NO:2.
82. The isolated nucleic acid of claim 81, wherein said protein activates G protein-coupled signal transduction in a G protein-coupled receptor independent manner.
83. The isolated nucleic acid of claim 81, wherein said nucleic acid is a human nucleic acid.
84. An isolated nucleic acid comprising nucleotides having a sequence encoding an AGS protein, which is encoded by the sequence set forth in SEQ ID NO:1 or the sequence set forth in SEQ ID NO:3, or a full complement to the isolated nucleic acid.
85. The isolated nucleic acid of claim 84, wherein the nucleotides have a sequence as set forth in SEQ ID NO:1.
86. The isolated nucleic acid of claim 84, comprising nucleotides having a sequence as set forth in SEQ ID NO:3.
87. The isolated nucleic acid of claim 84, which encodes a protein that activates G protein-coupled signal transduction in a G protein-coupled receptor independent manner.
88. The isolated nucleic acid of claim 84, which is a human nucleic acid molecule.
89. A vector comprising the nucleic acid of claim 81.

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90. The vector of claim 89, which is a recombinant expression vector.
91. An isolated host cell containing the vector of claim 89.
92. A method for producing an AGS protein comprising culturing the host cell of claim 91 in a suitable medium such that AGS protein is produced.
93. The method of claim 92, further comprising isolating an AGS protein from the medium of the host cell.

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91. An isolated nucleic acid comprising the nucleotide sequence as set forth in SEQ ID NO:73.
110. A promoter sequence having nucleotides 1-2710 as set forth in SEQ ID NO:73.
118. A nucleic acid construct comprising a promoter sequence having nucleotides 1-2710 as set forth in SEQ ID NO:73 operably linked to a heterologous sequence of nucleic acid.
119. The nucleic acid construct of claim 118, wherein the heterologous sequence of nucleic acid is a coding sequence.
120. The nucleic acid construct of claim 118, wherein the heterologous sequence of nucleic acid encodes a reporter molecule.
121. The nucleic acid construct of claim 119, wherein the coding sequence is a luciferase reporter molecule.
122. The nucleic acid construct of claim 118, further comprising nucleotides 3956-4990 as set forth in SEQ ID NO:73, wherein nucleotide 3956 is linked to the 3' end of the heterologous sequence.
123. A host cell comprising the nucleic acid construct of claim 118.
124. A process of transcribing a heterologous sequence of nucleic acid, comprising culturing the host cells of claim 123 under conditions that result in transcription of the heterologous sequence of the

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nucleic acid construct and harvesting the transcription product from the heterologous sequence.

125. A process of expressing a peptide or polypeptide encoded by a heterologous sequence of nucleic acid comprising culturing the host cell of claim 123 under conditions that result in expression of the peptide or polypeptide encoded by the heterologous sequence of the nucleic acid construct.